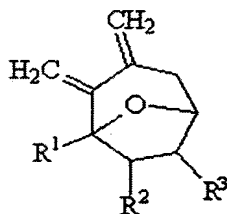


What is claimed is:

1. A 7-membered carbocyclic compound having diexomethylene groups which is represented by the following Chemical Formula 1:



(I)

wherein R¹ is a C₁ to C₆ alkyl group, and R² and R³ is respectively a hydrogen atom, or R¹, R² and R³ may be connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

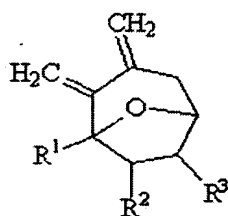
2. The compound according to Claim 1, wherein R¹ is C₁ to C₃ alkyl, and each of R² and R³ is a hydrogen atom.

3. The compound according to Claim 1, wherein R¹ and R² are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R³ is a hydrogen atom.

4. The compound according to Claim 1, wherein R² and R³ are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R¹ is a hydrogen

atom.

5. A method of synthesizing the 7-membered carbocyclic compound having diexomethylene groups, represented by the following Chemical Formula 1, from a trimethylsilanylmethyl-allenol derivative by the intramolecular Prins cyclization in the presence of Lewis acid:



(I)

wherein R¹ is a C₁ to C₆ alkyl group, and R² and R³ is respectively a hydrogen atom, or R¹, R² and R³ may be connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

6. The method according to Claim 5, wherein a solvent selected from the group consisting of diethyl ether, tetrahydrofuran, dichloromethane and chloroform is used as a reaction solvent.

7. The method according to Claim 5, wherein said Lewis acid is trimethylsilyl trifluoromethanesulfonate (TMSOTf) and is used in 1.0 to 1.5 equivalent of said

trimethylsilylmethyl-allenol derivative.

8. The method according to Claim 5, wherein the reaction proceeds in the temperature range from -90°C to room temperature (25°C).

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